

The Battle of Chickamauga

Rules and Reference

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Introduction

This game is a detailed simulation of the Civil War Battle of Chickamauga, fought between the Union Army of the Cumberland and the Confederate Army of Tennessee, near the Chickamauga Creek in northern Georgia, on September 19th and 20th, 1863.

Each player takes the role of one of the two sides' commanding generals and, with the same forces and limitations of the historical generals, attempts to defeat the opposing army.

THE COURSE OF PLAY

Chickamauga consists of thirteen turns: eleven day turns, each representing two hours of the battle, and two night turns, each representing six hours.

The game is played on a map of the battlefield, divided into hexagonal cells (hexes). Each hexagon represents an area about 400 yards across. Each army consists of about thirty brigades, averaging one to two thousand men each, plus attached artillery.

The game may be played with two players or solitaire, with the computer taking either side.

Each turn has four parts:

1. The Confederate player gives orders to his units, one brigade at a time, ordering them to move, fire, rest, dig entrenchments, and so on.
2. The Union player gives orders to his units.
3. The computer executes both sides' orders, moving all units simultaneously and resolving battles as they occur.
4. The computer displays a review of the turn, showing both players what happened during the turn.

After the turn review, the next turn starts.

Turns

Sept. 19

- | | |
|---|---------|
| 1 | 10 AM |
| 2 | 12 Noon |
| 3 | 2 PM |
| 4 | 4 PM |
| 5 | 6 PM |
| 6 | 8 PM* |

Sept. 20

- | | |
|----|---------|
| 7 | 2 AM* |
| 8 | 8 AM |
| 9 | 10 AM |
| 10 | 12 Noon |
| 11 | 2 PM |
| 12 | 4 PM |
| 13 | 6 PM |

*Night

IMPORTANT: LEARNING THE GAME

You don't have to read this entire rules book in order to play the game. First, read and follow the instructions in the section entitled *Learning How to Play*. You should then be able to play by referring to the player reference card. The main body of the rules should be needed only for occasional reference.

Game Contents

Chickamauga contains the following components:

1. This rules booklet.
2. Loading/saving instructions.
3. A folder entitled *Learning How to Play*.
4. Historical and players' notes booklet.
5. A player reference card, summarizing all keyboard and joystick commands.
6. A single-sided, single-density program diskette.

7. An 8½ × 11'' map of the battlefield (duplicating the map on the computer screen).

WARRANTY

If your diskette should fail, simply return it for replacement to Game Designers' Workshop. If you have owned the diskette for less than 90 days, there will be no charge. (Please enclose a copy of the sales slip as proof of purchase date.) Otherwise, there is a charge of \$5.00. Outside the United States (U.S. includes APO and FPO), add \$2.00 for shipping and handling.

If any other game component is damaged or missing when the game is purchased, we will replace it free of charge.

Pre-Game Options

When the game is originally loaded, a screen of game options appears. There are nine options, with their default values displayed. Any value may be changed by pressing the key which appears in parentheses before the value. For example, to change the *morale active* option from *no* to *yes* (or back again) press **(M)**. Most options are *yes/no*. The first three are different, as explained below.

When all options are set to your satisfaction, you may begin the game by pressing **(ESC)**.

Many options may be changed during the game. See *Mid-Game Options*, page 21.

Number of Players (P): This is either 1 or 2. If 1, the computer plays one of the sides and the two following options must be set. If 2, the two following options have no effect. Press **(P)** to change.

You Command the Union/Confederate Army (A): C stands for Confederate, U for Union. Press **(A)** to change.

Computer Skill Level (L): L is low, M is medium, and H is high. Adjust the value to your own experience. Press **(L)** until you get the value you want.

All Enemy Units Visible (V): If *yes*, all units of both players are always displayed on the screen. If *no*, only those enemy units visible to your units (see *Visibility*, page 16) are displayed. This creates realistic uncertainty; you won't know what's happening behind the enemy front line and he won't know about you.

Morale Active (M): If *yes*, morale changes and has an effect on the game. If *no*, it has no effect, although it is still displayed.

Fatigue Active (F): If *yes*, fatigue changes and has an effect on the game. If *no*, it has no effect, although it is still displayed.

Communications Active (C): If *yes*, headquarters units appear in the game and units must be near them to function properly; communications changes and has an effect on the game. If *no*, headquarters do not appear and communications has no effect, although it is still displayed.

Sound Active (S): If *yes*, sound is used to provide feedback during the game. If *no*, there is no sound, except during the turn review.

Second Day Battle (B): If *no*, the game starts at the beginning of the battle, the morning of September 19th. It lasts 13 turns.

If *yes*, the game starts on the second day of the battle, the morning of September

20th; units have taken casualties, dug fortifications, and have moved to new positions. The game lasts for 6 turns.

The Strategic Maps

All four of the strategic maps show the entire playing area (28 hexes by 32 hexes) to help you review the overall situation. Each hex is represented as a small colored rectangle. You can move the cursor (the white box), look at units, even pick them up, but you can't give them orders.

There are several lines of information above and below each map; this information is the same as on the tactical map, and is explained in the next rules section.

THE VICTORY HEXES MAP

The first display to appear at the beginning of each player's turn is the victory hexes map. It shows the road network in light red and the victory hexes in blue (if held by the Union) or gray (if held by the Confederates). Victory hexes are explained under *Victory*, page 20. The bottom line of the screen shows how many victory points the hex is worth. When the cursor comes to a victory hex, the computer beeps. Units are not displayed on this map, but information is still displayed on units in the hex the cursor occupies.

THE BOTH SIDES MAP

This map shows the units of both sides: Union in blue and Confederate in gray, plus the road network in yellow. The map always shows all your units. If the visibility option is set at *yes*, it shows all the enemy units. If the option is set at *no*, it shows only those enemy units visible to at least one of your units. (This is true of the one side maps too.)

ONE SIDE MAPS

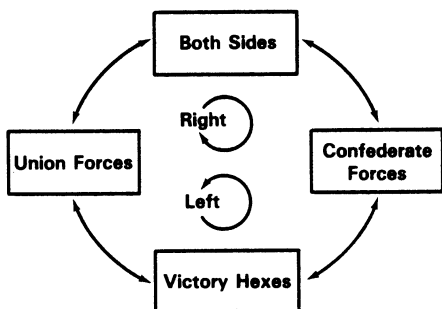
There are two of these. They both show all terrain features in simplified form: field and clear hexes in yellow, woods in green, and hills and ridges in brown. The Union map shows Union units in blue; the Confederate map shows Confederate units in gray.

CHANGING MAPS

You can get from one strategic map to another by using the left and right arrow keys (← and →). The diagram at right shows how they are arranged. (Note: you don't have to press **CTRL**, just the key.)

You can get to the tactical map (and back again) by pressing **[?]**. (You don't have to press **SHIFT**, just the key.) The cursor will remain in the same hex when changing maps; however, a unit which is picked up is automatically dropped.

Strategic Maps



The Tactical Map

The tactical map is a detailed map of the Chickamauga battlefield, divided into hexagonal cells (hexes), used to regularize movement and positioning like the squares of a chessboard. Unlike the printed map, no actual hexes appear on the screen, just their contents; the hexes are still easy to see, and the screen is less cluttered that way.

The screen shows only part of the tactical map at a time: a window, ten hexes wide by seven hexes high, which can be scrolled over the entire map (28 hexes wide by 32 hexes high) by moving the cursor close to the edge of the screen.

Each unoccupied hex displays its terrain type; if there is a unit in a hex, its terrain type is not visible (but see below). Roads, trails, and the river are placed between the hexes (on the hex-sides).

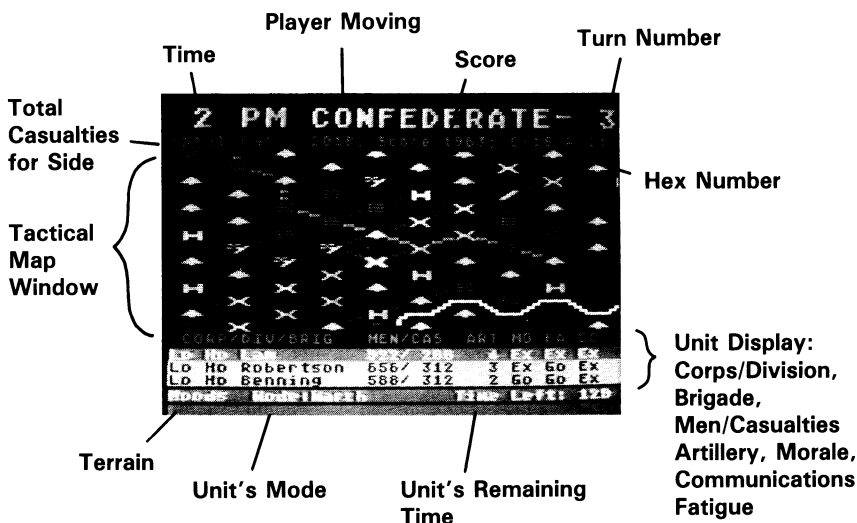
UNITS

The four types of units, infantry, cavalry, mounted infantry, and headquarters, are shown on the map using different symbols as shown on the reference card. Confederate units are gray, Union units blue. Only the symbol for the top unit in the hex is shown on the map.

TERRAIN

There are five possible terrain types in a hex: clear, field, woods, hill, and ridge. A clear hex is empty; the symbols for the other types are shown on the reference card.

Screen Display



THE CURSOR

The cursor is the white symbol on the map. If in a vacant hex, it's a cross; if in an occupied hex, it's the same symbol as the top unit. The cursor is used to give orders to units and to move the player's attention around the map.

THE INFORMATIONAL DISPLAYS

There are several lines of information above and below the map. The top line gives the current turn: time, player whose move it is, and number. The second line gives the total casualties suffered by your side so far, the current score (see *Victory*, page 20), and the number—column (C) and row (R)—of the hex the cursor is in.

The hex number is important when consulting the printed map. Each hex on the printed map has a four-digit number corresponding to the hex numbers on the screen (the first two digits are the column and the second two are the row).

For some hexes, the screen displays a name instead of a number (the name also covers the score). These are locations of particular importance to the battle, to help you relate the map to historical accounts. These hexes are also named on the printed map.

The first four lines under the map (only two lines on the strategic maps) are the unit display, showing information about the top three units in the hex the cursor is in. This information is explained under *Units*, below.

The line second from the bottom always shows, on the left, the terrain in the cursor's hex. If a unit is picked up, it shows additional information about that unit (see *Units*).

The bottom line is reserved for error messages and prompts: messages from the computer to you regarding the rules.

Units

Troops are organized into units; you give them orders one unit at a time.

There are four types of units: infantry brigades, mounted infantry regiments, cavalry brigades, and divisional headquarters. They are represented on the map by symbols, as shown on the reference card.

Infantry fights better than cavalry and is of superior quality in fire and melee attacks. Cavalry's big advantage is speed.

Mounted infantry moves like cavalry, has several times the firepower of infantry, takes fewer casualties from fire, and is also slightly better in melee attack and defense than infantry. The reason for this is that they are the only units in the game armed with breech-loading, repeating rifles. The effectiveness of the mounted infantry units is such that they are broken into regiments in the game, which also allows you to rush a single regiment to a threatened part of the battlefield, as was done historically.

Headquarters are not combat units. (They aren't really units at all, merely an abstract representation of the line of communications.) They only appear when the communications option is set at yes. They provide no benefit whatsoever in combat and are eliminated whenever an enemy unit moves into their hex (or they move into its hex), or if fired on by an adjacent enemy unit.

Almost every combat unit includes artillery. Most of the brigades at the battle had a battery of artillery permanently attached. Other batteries, part of their army's reserve, have been placed in the brigades with which they spent the most time during the battle.

THE UNIT DISPLAY

The display shows information about the top three units in the hex the cursor is in. Further units in the hex (up to 8) can be seen by picking up the top units. Units are listed in the order in which they appear in the order of battle in the historical notes book.

The text line under the tactical map always displays:

“CORP/DIV/BRIG MEN/CAS ART MO FA CO”,

the headings for the next three lines (for the tactical map). These translate as: corps/division/brigade identification, current brigade strength (in men), total casualties for the brigade, number of artillery pieces in the brigade, and three brigade effectiveness factors: morale, fatigue, and communications.

Identification: Each brigade is part of a division and corps. (See the order of battle.) The corps and brigade names are included for historical interest only. The division is important if the communications option is set at *yes*. Union brigades are identified by three numbers: a Roman numeral for corps, a number for the division, and one for the brigade. For example, IV/1/3 is the Third Brigade of the First Division of Fourth Corps. Confederate corps, divisions, and brigades are identified by the names of their commanders. Corps and division are abbreviated; see the order of battle for the complete spelling. (Note that these names lag somewhat behind the actuality: Law's Brigade was commanded by Sheffield, while Law commanded Hood's Division, Hood commanded Longstreet's Corps, and Longstreet commanded the left wing of the army.)

Men: This is the current strength of the unit. Starting strengths are given in the order of battle and are as close a count of historical strengths as the records can provide.

Casualties: This is the number of men lost in battle. Some of these may be recovered by resting.

Artillery: This is the number of artillery pieces in the brigade. These may be lost in melee and can never be recovered.

Morale, Fatigue, Communications: These are three fluctuating values important to a unit's effectiveness. Morale and fatigue have 5 possible values: EX (excellent), GO (good), FA (fair), PO (poor), and AW (awful). Communications has only three: EX, FA, AW.

Headquarters: Headquarters units have no information except corps and division designations.

Mounted Infantry: Mounted infantry units are regiments, and are not part of a corps or division. Their designations are given as MTI (for mounted infantry) followed by the regimental number. For example, 98 ILL is the 98th Illinois Regiment. The MTI headquarters is actually the headquarters of the 1st Brigade, 4th Division, XIV Corps, to which all the regiments except the 39th Indiana belonged. The 39th Indiana belonged to XX/2/1, and was attached to XIV/4/1 during the battle.

THE MODE LINE

The mode line is the line below the unit display which shows the terrain of the

cursor's hex. If a unit is picked up, this line gives the unit's mode and the number of minutes remaining in its turn.

Cursor Movement and Picking Up Units

Directional Keys: The most commonly used keys are the cursor movement or directional keys: keys used to indicate the six possible directions. There are two directional rosettes: the six keys surrounding **(F)** and the six surrounding **(J)**. See the reference card. When no unit is picked up, these keys move the cursor. For example, pressing **(U)** or **(T)** moves it one hex due north (up on the screen); pressing **(G)** or **(I)** moves it one hex northeast, and so on. If the cursor moves to within one hex of the edge of the screen, the map scrolls.

The directional keys are used to indicate directions when giving orders to units. Their use depends on the unit's mode. See *Orders* below.

Picking Up and Dropping: Pressing **(J)** or **(F)** will pick up a unit or, if a unit is already picked up, drop it and pick up the next unit in the hex (if any). When a unit is picked up, it is shown on top of the unit display, its line changes color, and its mode and time left appear on the mode line. A unit may be given orders only if it is picked up.

Go Back: Pressing **(B)** drops the unit currently picked up (if any) and returns the cursor to the last hex in which a unit was picked up. This key is particularly useful when giving movement orders to a stack of units.

Orders

During your turn, you give orders to your units. It is important to remember that this is all you are doing; when you move a unit, you are merely telling it to move, and whether it actually moves is determined during turn resolution. Enemy (or friendly) units may get in the way and prevent it from carrying out its orders.

To give a unit orders you must first pick it up. Then set the unit's mode to the type of order you want it to perform by pressing the correct key, from **(2)** to **(9)** (see the reference card). The unit's mode is shown on the mode line. Each mode is used for a different order. Putting a unit into rest or wait mode gives it an order; for other modes, additional information is necessary to create an order.

Orders take time. Every unit starts the turn with 120 minutes. When you give a unit an order, the time the order takes is subtracted from the unit's remaining time. If you cancel the order, the unit gets its time back.

When you pick up a unit, its mode is the same as the last order entered for it and its remaining time is the same as it was when you last dropped it. If no order has been entered, its mode is march or entering and its remaining time is 120 minutes.

MOVEMENT

There are three movement modes: *march* **(5)**, *cautious* **(6)**, and *attack* **(7)**. March is fastest, but units in march mode are vulnerable to fire and attack, so march is best avoided when close to the enemy. Cautious mode is slower but safer than march; units are less vulnerable and automatically fire at enemy units they encounter. Attack

mode is as vulnerable as cautious and is used to engage enemy units in melee assaults. Attack mode is the only way to force an enemy unit out of a hex or to enter an enemy-occupied hex.

How to Move: Movement is handled the same way in all three modes. Put the unit in the desired mode and move it using the directional keys. Moving requires various amounts of time, depending on the unit's mode and the terrain of the hex entered, as shown in the table below.

Infantry

<i>Mode</i>	<i>Ford</i>	<i>Road</i>	<i>Trail</i>	<i>Clear</i>	<i>Field</i>	<i>Hill</i>	<i>Woods</i>	<i>Ridge</i>
March	+20	20	30	20	20	30	40	80
Cautious	+60	30	40	30	30	40	50	100
Attack	+60	NE	NE	40	40	40	50	100

Mounted Infantry/Cavalry

<i>Mode</i>	<i>Ford</i>	<i>Road</i>	<i>Trail</i>	<i>Clear</i>	<i>Field</i>	<i>Hill</i>	<i>Woods</i>	<i>Ridge</i>
March	+10	10	20	10	10	20	30	100
Cautious	+30	20	30	20	20	40	50	100
Attack	+30	NE	NE	30	30	60	50	120

Headquarters

<i>Mode</i>	<i>Ford</i>	<i>Road</i>	<i>Trail</i>	<i>Clear</i>	<i>Field</i>	<i>Hill</i>	<i>Woods</i>	<i>Ridge</i>
March	+30	20	30	20	20	40	40	100

NE: No effect; as other terrain in hex.

Add 10 minutes to all times for units with poor fatigue; add 20 minutes for units with awful fatigue. In addition, add 20 minutes for units with awful communications.

Attacks: Several units may attack together if they enter the enemy hex at the same time; that is, if they have the same amount of time left after they enter the hex. You should try to synchronize your attacks so that all units attacking the same hex arrive at the same time. Up to 18 units (3 from each of the 6 surrounding hexes) can attack a single hex.

Stacking: When giving movement orders you can move your units through enemy units and can stack up to 8 friendly units in a single hex. When movement is resolved, however, a unit can't move into an enemy hex except in attack mode and no more than three friendly units may be in the same hex at the same time. Extra units wait until there is room in the hex. Watch out for traffic jams. For further details, see *Resolving the Turn*, page 12.

If you drop a unit in an enemy-occupied hex, only the enemy unit will be visible on the screen and on the unit display, so remember where you dropped them. However, you can pick up your units in enemy-occupied hexes, and your units in the hex will appear on the unit display if you do so.

You can actually put more than 8 units in a hex, but if you do, you won't be able to see them on the display. Units are listed on the unit display in the order in which

they appear on the order of battle. To find the 9th or higher unit in a hex, you must move some of the other units out of the hex.

FIRE

There are two fire modes: *fire near* (⑧) and *fire far* (⑨). In fire near, the unit's artillery fires along with its infantry (or cavalry or mounted infantry), at two or three adjacent hexes. In fire far, the artillery fires separately at a more distant target. Every fire order takes 20 minutes. You can't hurt your own units by shooting at them, so don't worry about keeping them out of the field of fire.

Fire Near: When you put the unit in fire near mode, the message appears, "Put dots in infantry targets". Press a directional key to determine the primary direction of your fire; immediately, five pink dots appear in that hex, and in the two hexes on either side of it. 50% of the unit's fire will be directed into the central hex, and 25% into each of the flank hexes. (You can change this to a two-hex frontage if you like; see below.) To complete the fire order, press [] or press the same directional key again.

Two-Hex Frontage: To fire into a more concentrated two-hex frontage (with 50% of the unit's fire into each hex), put the unit in fire near mode and press a directional key. Again, five pink dots appear in three hexes. Then press the directional key for one of the two flank hexes (the direction from the unit). The dots in the other flank hex will disappear and the order will be automatically completed. Pressing a directional key other than for one of the flank hexes will just move the center hex without completing an order.

Fire Far: When you put a unit in fire far mode, the same message appears as in fire near mode. Just like in fire near mode, use the directional key to give the direction of infantry fire. (Note, however, that only four dots appear in each hex.) Complete the first part of the order by pressing the same directional key or by reducing to a two-hex frontage. (Do not press [].) Then the message appears, "Put dot in artillery target". Use the directional keys to indicate the target hex. This target must be two or three hexes from the firing unit and visible to it (see *Visibility*, page 16). If the hex you choose is too close, too far, or not visible to the firing unit, the computer will tell you. When you have the dot positioned in a valid target hex (again, the computer will tell you), press [] to complete the order.

REST

Putting a unit in *rest* mode (③) completes a rest order. Further rest orders may be entered by pressing any directional key. A rest order takes 40 minutes. Its effect is to recover some of the casualties and fatigue the unit has suffered. However, if the unit suffers any casualties while the order is in effect (through fire or melee), the unit receives no benefit from its rest.

WAIT

Putting a unit in *wait* mode (④) completes a wait order. Further wait orders may be entered by pressing any directional key. A wait order takes 10 minutes. It has no effect on the unit (other than using up 10 minutes). Its major uses are to synchronize attacks and to avoid traffic jams.

FORTIFY

Fortifying a hex is possible only during night turns. It takes a unit a full night turn to fortify one hex-side. If 3 units are stacked together in a hex, each could fortify one hex-side a turn and during the two night turns all six sides of the hex could be fortified.

To fortify a hex-side, put the unit in *fortify* mode (2). The message appears “Put star on hexside to fortify”. When you press any directional key, a star appears. Put this on the hex-side to be fortified and press [] to complete the order.

Fortifications greatly increase the defensive capability of a hex against fire and melee attacks coming through the fortified hex-side. See *Fortifications*, page 17.

REPEATING ORDERS

You can repeat a unit's previous order (exactly) by pressing (Y). To repeat an order several times, press (Y) several times. This is especially useful with fire orders, which take a long time to complete and are often repeated. If a fire order has not been completed, pressing (Y) will complete it and enter another one. For example, if you have entered everything for a fire far order except the final [], pressing (Y) will enter two fire far orders.

CANCELING ORDERS

You can cancel a unit's orders at any time. When a unit is picked up, pressing (X) cancels its last order (or any incomplete order); by repeatedly pressing (X), you can cancel all of a unit's orders. To cancel all of a unit's orders at once, press (SPACE).

Occasionally you may want to cancel all the orders for all of your units. This is the same as restarting your portion of the turn. This can be done easily by pressing (CTRL) and (X) at the same time. Since this can have drastic effects, to guard against accidentally pressing this key the computer gives you a chance to change your mind; press (CTRL) (X) again to restart the turn.

REVIEWING ORDERS

If a unit is currently picked up, you can review its orders by pressing (RETURN). The computer will quickly run backward through the unit's orders (to show you where it came from) and will then run more slowly forward through its orders. If no unit is currently picked up, (RETURN) reviews the orders of all units currently on the screen. Pressing the (SHIFT) and (RETURN) keys at the same time reviews the orders of all friendly units. A review can be stopped at any time by pressing (X). (The computer will finish the unit currently being reviewed.) You can pause the review by pressing any other key.

FINDING UNITS WITH NO ORDERS

At the end of your turn, you may sometimes be uncertain whether you have given orders to all of your units. This can be checked easily. Go to the both sides strategic map and press (RETURN). The cursor will move to the first friendly unit without orders (as listed on the order of battle). If all units have orders, the message “All units have orders” will appear.

To locate all of your units without orders, go to the both sides strategic map and press **(SHIFT)** and **(RETURN)** at the same time. The cursor will jump from unit to unit, flashing the message “No order entered” for each unit without orders, and skipping units which have orders.

OTHER KEYS

Pressing **(O)** cycles the unit through the various modes in order. Note that entering rest or wait mode with **(O)** does not complete an order; you must press a directional key for that.

Pressing **(0)** (zero) drops a unit without picking up the next one in the hex. Pressing **(C)** also drops a unit if there is no order to complete.

If a fire order is nearly completed, changing the unit’s mode or putting it down will complete the order.

QUITTING THE TURN

After you are finished with all your orders, quit the turn by pressing **(Q)**. To prevent doing this by accident, the computer asks you to confirm your intentions. Press **(Q)** again to quit.

After the Confederate player quits, it’s the Union player’s turn. After the Union player quits, the computer resolves the turn’s action.

Resolving the Turn

After both players have issued orders, the computer resolves them all simultaneously, 10 minutes at a time. If an order takes more than 10 minutes to execute, it takes effect in the last 10 minutes; for example, if it takes 40 minutes for a unit to move into a hex, the unit waits for 30 minutes and moves in the last 10 minutes. Fire is different: units fire twice per fire order, or once each 10 minutes.

MOVEMENT

During turn resolution, a unit may not enter the same hex as an enemy unit, and at most three friendly units may be in a hex at one time. If movement is not carefully thought out, this may result in considerable delay as units get in each others’ way.

Enemy Units: If units of both sides try to enter the same hex during the same 10 minutes, only one will actually enter: the one which has spent the longest time trying to enter. Thus if it takes one unit 20 minutes to enter a hex and it takes another unit 30 minutes, the second unit gets in. (Of course, it must have started 10 minutes earlier.) If both units have spent an equal amount of time, precedence goes in order of type: cavalry, mounted infantry, infantry, HQ. If the two units are of the same type, the computer chooses alternate sides each time throughout the game. The unit which doesn’t make it in waits 10 minutes and tries again.

If a unit tries to enter a hex already occupied by an enemy unit, the result depends on its mode. A unit in march mode stops and changes to wait mode for the rest of the turn, forgetting all further orders. A unit in cautious mode stops, changes to fire near mode, and fires at the hex it tried to enter (plus the two flanking hexes) for the rest of the turn. A unit in attack mode tries to attack the hex. see *Attack* below.

Friendly Units: If two units of the same side try to enter the same hex, and this would result in a stack of greater than three, only one will actually enter. Again, it's the one which spent the most time entering. If both have spent the same amount of time, precedence goes in order of type: HQ, cavalry, mounted infantry, infantry. If both are of the same type, the computer chooses the one listed first on the order of battle. The unit which doesn't make it waits 10 minutes and tries again.

FIRE

Fire is resolved after movement; if an enemy moves into a unit's field of fire during a particular 10 minutes, it gets shot at; if it moves out during that 10 minutes, it doesn't. Fire is resolved individually, unit by unit. Each fire (10 minutes from one unit) inflicts from 1 to 255 casualties, depending on a host of factors, outlined below.

Strength of Attacker: Obviously, the more men firing, the more casualties. However, there is a limit to the number of men who will fit into a brigade's firing line. Only the first 1023 men in a unit can fire; the rest are waiting behind the line to fill gaps. One artillery piece is worth about 200 men.

Strength of Defender: The more targets, the more casualties too, although this is not nearly as important as the number of attackers.

Terrain of Defender's Hex: A unit receives 7 times as many casualties defending in a clear hex as in a ridge hex. In between, in order from worst to best, are field, hill, and woods. Fortifications make any hex almost as good as a ridge, and make a ridge better.

Defender's Mode: A unit takes the most casualties in march mode, less in cautious, attack, or fire, and the least in wait, rest, or fortify.

Defender's Unit Type: Mounted infantry takes half as many casualties as other unit types.

Attacker's Unit Type: Mounted infantry has 5 times the firepower of infantry; cavalry is a little better than half as good as infantry.

Attacker's Morale: Units with excellent morale fire a little better than those with good or fair morale and much better than those with poor and awful morale.

Attacker's Fatigue: Fatigue has the same effect on fire as morale does.

Attacker's Communications: Units with fair communications fire at slightly less than full effectiveness; those with awful communications can't fire at all.

Artillery Range: Artillery fires at $\frac{2}{3}$ effectiveness at 2 hexes, $\frac{1}{2}$ effectiveness at three hexes.

ATTACK

In an attack, units charge enemy positions and engage in melee (hand-to-hand) combat. If the attack is strong enough, the defending units are driven from the hex. Units attack and defend in groups; all units attacking the same hex at the same time are combined into a single attack. For maximum effect, you should have as many units as possible attack together, using wait orders to make them all arrive in the defender's hex at the same time (that is, with the same number of minutes left in the turn). Up to 18 units may attack a hex, 3 from each of the 6 surrounding hexes. All may attack and are counted during attack resolution, but only 3 will actually enter the hex.

Each attack proceeds in five steps: attacker decision check, defender decision check,

odds computation, attack resolution, and casualty determination.

Attacker Decision: Each attacking unit is checked to see if it will go through with the attack; the result depends on all the factors listed below for the attacker (but not on the number of men in the unit). In general, all the factors must be fairly high. One very low factor or several moderately low factors will result in failure. If a unit fails its check, it does not attack and spends the rest of the turn firing at the defender's hex. If all attacking units fail their checks, there is no attack.

Defender Decision: If any of the attackers pass their checks, each defending unit must then be checked. The nature of the check is the same as for the attacker except, of course, that the defender's factors are used. If a defending unit fails the check, it has been shaken: its effective strength is halved during the battle and it must retreat after the battle, whatever the outcome.

Odds Computation: The odds are a ratio of the attacker's strength to the defender's strength, as modified by the factors given below. Also note that defenders who failed their decision checks are halved.

Defender's Mode: The defender is at a slight disadvantage if attacked while in march or cautious mode.

Attacker's and Defender's Morale: Both sides are strongly affected by morale, the attacker slightly more so. A unit defending with excellent morale is about half again as good as one with awful morale; an attacker with excellent morale is nearly twice as good as one with awful morale.

Attacker's and Defender's Fatigue: The attacker is moderately affected if his fatigue is fair or worse; the defender is slightly affected if his fatigue is poor or worse.

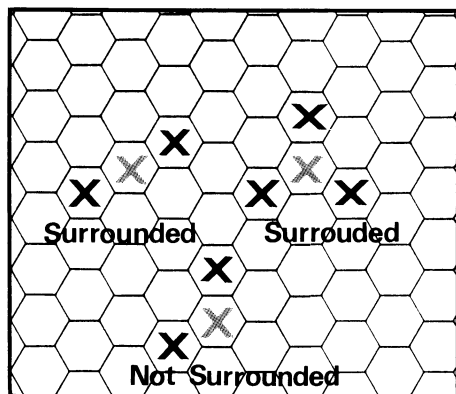
Attacker's Communications: The attacker is moderately affected by his communications.

Attacker's and Defender's Unit Type: Cavalry is slightly worse at attack and defense than infantry. Mounted infantry is slightly better at attack than infantry, but twice as good at defense.

Attacker's and Defender's Terrain: The attacker gets a slight advantage if attacking from a hill or ridge hex. The defender gets a moderate advantage from woods, a greater advantage from hills, and is half again as good defending on a ridge. The attacker is reduced by almost half attacking across the river (possible only at a ford—not a bridge), and is considerably reduced when attacking a fortification.

If Attacker or Defender Is Surrounded: A unit is surrounded if all hexes adjacent to it are occupied by enemy units or are vacant hexes adjacent to enemy units. See the diagram for examples. The attacker is moderately affected by being surrounded; the defender is greatly affected.

Resolution: If the final odds ratio is 3:2 or better in favor of the attacker, the attacker wins. Otherwise, the defender wins.



If the attacker wins, all the defender's units must retreat one hex and spend the remainder of the turn resting (or trying to rest). The retreating units try to avoid retreating into a vacant hex adjacent to an enemy unit, if possible. Union units try to retreat to the northwest, north, or northeast; Confederates try to retreat to the southeast, south, and southwest, in those orders of preference. Three of the attacker's units advance to occupy the hex. They are chosen in order of their listing on the order of battle.

If the defender wins, only those defenders who failed their decision checks must retreat. All attackers remain in their original hexes and spend the remainder of the turn firing at the defender's hex.

Casualties: Larger units take more casualties. The attacker's casualties are not strongly affected by the defender's strength; they are affected by the ratio of the other factors listed above. The defender's casualties are strongly affected by the ratio of attacker's to defender's strength and by the ratio of the other factors. The defender's casualties are also increased if any defenders failed their decision checks. The defender's casualties are doubled if his units retreat into a vacant hex adjacent to an enemy unit. In any case, the loser's casualties are doubled.

Whenever a defending unit retreats (as a result of failing its determination check or losing the battle) it also loses one artillery piece.

If a unit tries to retreat and there is no hex available to retreat into (that is, it is completely surrounded by a combination of enemy units, three-high stacks of friendly units, the river, or the board edge), it remains in place and takes double casualties.

RESTING

By resting, a unit can recover some of its casualties and fatigue. A unit's rest is interrupted (and it gets no benefit) if it receives any casualties during the 40 minutes it spends resting. A successful rest order recovers about 2% of the unit's current casualty level. It also recovers the amount of fatigue generated by a turn's movement, half the amount of a turn of firing or being fired upon, or ¼ the amount for retreating from a melee. Resting during a night turn is three times as effective.

If a unit has 40 minutes (or more) left after its orders are entered, it automatically enters rest mode; a unit with no orders at all would rest three times.

WAITING

The only effect of a wait order is to keep a unit stationary for 10 minutes.

FORTIFICATION

Fortification only occurs at night. The attempt succeeds unless the unit is forced to retreat from the hex.

Turn Review

After the turn has been resolved, the computer displays a review of the turn's events on a strategic map. Both players (if there are two) should watch this display together.

The map shows Union and Confederate units plus the road network. The turn is displayed 10 minutes at a time, showing all movement and combat. When a unit moves, it flashes white to draw your attention. When a unit takes casualties (from fire or melee)

it flashes red. Reinforcements appearing on the edge of the map flash green. Units exiting the map flash orange.

If the visibility option is set at *no*, only those units visible to both sides will be shown on the map. Units which move out of sight of the enemy will disappear from the map, and units which move into sight will suddenly appear. Depending on the degree to which the forces are engaged, most of the units present (or even all of them) may be invisible—which should make the players very nervous indeed.

When the turn review is over, you can see it again by pressing **RETURN** or go on to the next turn (starting the next Confederate turn) by pressing **Q**.

Visibility

If the visibility option is set at *yes*, all units of both sides are always visible to both players. If the option is set at *no*, only those enemy units can be seen which are visible to at least one friendly unit. The maximum range of visibility is five hexes (only one hex at night), and the view is obstructed by intervening woods or ridge hexes. Since woods and ridge occupy much of the map, visibility is often reduced to just one hex even in the daytime. Note that new enemy units do not appear while you are giving orders—since your units haven't really moved yet, they can't see anything new either. When the visibility option is set at *no*, you should pay especially close attention to the turn review; enemy units may move completely through your line during the turn, and the turn review may be your only glimpse of them.

Terrain

Each hex contains a single type of terrain, represented by a symbol, as shown on the reference card. (Clear terrain is blank.) The terrain of the hex containing the cursor is also shown at the left of the mode line. Roads, trails, and the river are between hexes, on hex-sides. Terrain affects movement, fire, and melee.

Movement: The length of time it takes to enter a given hex is shown on the table on page 9.

Roads and Trails: The value for road or trail is only used if entering the hex on a road or trail. Using a trail never slows movement; a unit entering a field on a trail, for example, uses the faster field value, not the trail value.

Bridges: Units can cross rivers only at a bridge or ford. Bridges are places where a road (not a trail) crosses the river. There are only two bridges on the map: Dyer's Bridge (hex 27,12) and the bridge at Lee & Gordon's Mill (10,31). Reed's Bridge (25,17) was burned by the Union the day before the battle; however, there is a ford there. Alexander's Bridge (22,22) was also burned, and there is no ford. However, the Confederates rebuilt the bridge during the battle, and therefore the bridge re-appears at the beginning of turn 6 (the first night turn). It appears as a short length of road crossing the river. One side of another bridge, the Ringgold Bridge (28,2), is also on the map, but the other side is off the map and the bridge isn't much use.

Fords: Fords are represented by gaps in the river, often with trails crossing. There are many of them on the map.

Fire: The terrain of the defender's hex affects fire. Units in clear terrain take the

most casualties, in fields slightly less, in hills much less. Units in woods take less than half as many casualties as those in clear, and those in ridge only $\frac{1}{4}$ as many. Artillery fire (fire far) is obstructed by intervening hills or woods.

Melee: The terrain of both attacker's and defender's hex affects melee. For the attacker, hills and ridge offer a slight advantage, while attacking across a river nearly halves the attacker's strength. For the defender, woods offer a slight advantage, hills somewhat more, and ridge increases the defender's strength by half.

Fortifications

Fortifications represent log and earth ramparts, trenches, and abatis. They occupy hex-sides and are represented by segments of a square, facing a particular hex. A hex with all its sides fortified would have a box in it. Units can fortify only at night. Fortifying one hex-side takes one unit one full night turn; other units can fortify other sides of the same hex at the same time. Fortifications help defend in fire and melee (if the enemy fires or attacks across a fortified hex-side). Artillery fire in fire far mode is unaffected. Fortifications do not in any way affect the ability of units occupying them to fire or attack out of the hex.

Fire: Fortifications make clear, field, or woods hexes almost as good as ridge. They make hills and ridges twice as good as unfortified ridges.

Melee: Fortifications reduce the strength of attacking units by about a third.

Movement: Fortifications have no effect on movement. They stay in the hex even if all friendly units leave. However, fortifications are immediately destroyed if an enemy unit enters the hex.

Visibility: If the visibility option is set at *no*, enemy fortifications, just like enemy units, are not displayed unless the hex is visible to at least one friendly unit.

Casualties

A unit's casualty total is the number of men it has lost in fire and melee. The unit's current strength is its initial strength minus its casualties. Heavy casualties can lower morale: if a unit takes casualties equal to $\frac{1}{3}$ its initial strength, it drops one morale level; if it takes casualties equal to $\frac{2}{3}$ its initial strength, it drops another level. Casualties (and thus morale) can be recovered—very slowly—by resting. This represents the return to the unit of stragglers who became separated in battle.

If a unit's current strength ever drops below 100 men, the unit is eliminated and immediately disappears from the map.

Morale

Morale represents a unit's fighting spirit. It changes and affects the game only if the morale option is set at *yes*. There are five levels of morale: excellent (EX), good (GO), fair (FA), poor (PO), and awful (AW). Morale affects fire and melee.

Fire: The firing unit's morale affects its firepower. Units with good morale have slightly less firepower than those with excellent morale; fair is slightly worse than good. Units with poor morale fire only half as well as those with excellent morale,

and those with awful morale fire only $\frac{1}{4}$ as well.

Melee: Morale affects attacker and defender the same, except that an attacker with awful morale is less effective than a similar defender. Excellent is about half again as good as defender's awful, and almost twice as good as attacker's awful.

Changes in Morale: If a unit takes casualties equal to $\frac{1}{3}$ its initial strength, it drops a level. If it takes casualties equal to $\frac{2}{3}$ its initial strength, it drops another level. If a divisional HQ is killed, all units of the division drop a level.

If resting restores a unit's casualty level to better than $\frac{1}{3}$ (or $\frac{2}{3}$), it recovers the lost morale level. There is no remedy for loss of the divisional HQ.

Fatigue

Fatigue represents temporary loss of effectiveness through exertion and stress. It is easily gained and easily lost. Fatigue changes and affects the game only if the fatigue option is set at *yes*. The levels of fatigue are the same as those of morale. Fatigue affects fire, melee, and movement.

Fire: The effect of fatigue is the same as the effect of morale.

Melee: Fatigue has less effect on melee than morale, and the defender is affected less than the attacker. An attacking unit is unaffected until its fatigue reaches fair, when its strength is moderately reduced; strength is slightly more reduced at poor and awful. A defending unit is unaffected until its fatigue reaches poor, and its strength is only slightly reduced.

Movement: A unit with poor fatigue takes 10 minutes more to enter each hex. A unit with awful fatigue takes an extra 20 minutes.

Changes in Fatigue: Fatigue increases each turn based on the most tiring activity the unit performed that turn. Retreating from a melee is the most tiring, and the unit drops two levels. Attacking or defending in a melee is almost as tiring. Firing or being fired upon is next, and moving is least tiring. Waiting and fortifying do not increase fatigue.

Resting (successfully) improves fatigue. One rest order compensates for a turn of movement, and two compensate for a turn of fire. Resting is three times as effective at night; one complete turn of resting (three orders) at night changes awful fatigue to excellent.

Communications and Headquarters

Communications represents a unit's command control, flank security, and ability to be resupplied with ammunition from stores in the rear. Headquarters (HQs) appear and units' communications change and affect the game only if the communications option is set at *yes*.

COMMUNICATIONS

There are only three levels of communications: excellent, fair, and awful.

Excellent: A unit's communications are excellent if it can trace a line of communications back to its own divisional HQ. Mounted infantry and cavalry can trace a line of communications back to any divisional HQ. A line of communications must be 5

hexes long or less and may not pass through an enemy unit, an empty hex adjacent to an enemy unit, or the river except at a bridge or ford. If an infantry unit's own divisional HQ is dead or off the board, it may trace a line of communications 3 hexes long or less to any HQ. If a unit can't trace a line of communications at the beginning of a turn, its communications become fair.

Fair: A unit with fair communications has slightly less firepower and slightly less strength when attacking in melee than one with excellent communications. If a unit with fair communications fires for more than 30 minutes or attacks or defends in melee, its communications change to awful.

Awful: A unit with awful communications can't fire at all and has slightly less strength when attacking in melee than one with excellent communications. It also takes 20 minutes extra to enter each hex. (A unit with both communications and fatigue at awful is slow indeed.)

If a unit with fair or awful communications can trace a line of communications, it immediately changes to excellent.

HEADQUARTERS

Headquarters (HQs) aren't really units at all; they are artificial constructs to encourage players to keep a secure line, watch their flanks, and keep the brigades of a division close together. Although they aren't really units, they act like units. They are given orders just like units, but the only orders they can receive are to move in march mode or wait.

An HQ is destroyed if an adjacent enemy unit fires at it or attacks it in melee (after passing its decision check). If the attacker fails its decision check, the HQ is not destroyed and automatically retreats from the hex.

An HQ alone in a hex is destroyed if an enemy unit enters the hex in any mode or if the HQ enters a hex with an enemy unit.

For these reasons, HQs should be kept out of the front line. You should be especially careful when advancing. It's easy for an HQ to run out in front of its division, bump into an enemy unit, and die.

Night

There are two night turns: turns 6 and 7. Night turns represent six hours each instead of two. However, because darkness and confusion slow everything down, each unit still has only 120 game minutes to use. Only one activity is improved at night: rest is three times as effective as in the daytime.

Visibility is reduced to one hex at night, and fire far is thus not possible.

Fortifications may be built only at night.

Reinforcements

During the game, both players receive reinforcements from off the map. They always arrive in road/trail hexes on the edge of the map, with at least 10 minutes of their time already spent. During turn resolution (and turn review), they arrive part-way through the turn. If there is an enemy unit in the arrival hex, the reinforcements wait

until the hex is free of enemy units (until a future turn if necessary). Reinforcing units can become stacked more than three high in the arrival hex, which often occurs when no orders have been given to them. There is no penalty imposed should this overstacking occur.

Union Reinforcements				Confederate Reinforcements			
Turn	Hex	Unit Designation	Time Left	Turn	Hex	Unit Designation	Time Left
1	7,32	XX/2 (HQ)	80	3	20,32	HI/Cleburne (HQ)	60
		XX/2/1	80			HI/CL/Wood	60
		XX/2/2	60			HI/CL/Polk	50
		XX/2/3	60			HI/CL/Deshler	40
2	7,32	XX/1 (HQ)	110	4	28,17	LO/McLaws (HQ)	110
		XX/1/2	110			LO/MC/Kershaw	110
		XX/1/3	100			LO/MC/Humphreys	110
3	7,32	XX/3 (HQ)	110	4	14,32	HI/Breckinridge (HQ)	110
		XX/3/1	110			HI/BR/Helm	110
		XX/3/2	100			HI/BR/Adams	100
		XX/3/3	80			HI/BR/Stovall	90
4	7,32	XIV/2 (HQ)	110	5	28,17	WA/WA/Gist*	110
		XIV/2/1	110			*700 men of Gist's Brigade arrived after the main portion of the brigade. This is simulated by adding 700 men to the strength of Gist's Brigade at the beginning of turn 11.	
		XIV/2/2	100				
		XIV/2/3	80				
6	7,32	MTI/39th IND	110				

Exiting the Map

Under certain conditions (see *Victory* below) you may want to have your units leave the map. A unit may leave the map on any road or trail that goes off the map. Move the unit to the edge and then try to move it off the edge. It stays in the same hex but its mode is now exited. You can still call it back by canceling its orders. If you don't, the unit will leave the map during turn resolution and will never return.

Victory

Victory in *Chickamauga* is based on the point score at the end of the game. The current score is displayed during the game to give you an idea of how you are doing. The score starts at 2000. A score over 2000 means the Confederates are winning, while a score under 2000 means the Union is winning. The higher (or lower) the score, the greater the victory.

The point score depends on four things: total casualties, control of victory hexes, units exited, and units trapped on the map. If the computer is playing one side, points for units trapped on the map don't count.

Casualties: Casualties account for most of the score. The score is changed by 1 point for each 8 casualties (increased for Union casualties, decreased for Confederate casualties). If casualties are recovered by rest, the score changes in the other direction.

Victory Hexes: Control of victory hexes is one of the two ways used to represent an army's need to maintain a line of communications (and of retreat). The victory hexes are strategic points along the main routes the Union and Confederate armies need for those purposes. Possession of each victory hex is worth points; if the Confederates own the hex, the value is added to the score; if the Union owns it, the value is subtracted. The victory hexes map shows all the victory hexes, who owns them, and their point values. A player owns a victory hex if his units were the last to pass through it. The total value of all the victory hexes is 192 points, and both players begin with 96 points each.

Exited Units: Units can exit the map on any road or trail. However, it is better to exit at specified exit hexes. The Union has three exit hexes: 1,16; 4,1; and 6,1. The Confederates have two: 20,32 and 28,17. If a unit exits from an exit hex, the player loses no points. If a unit exits from any other hex, the player loses points equal to $\frac{1}{16}$ of the unit's strength (half as bad as if it had been killed).

Trapped Units: This is the second representation of the need to maintain a line of communications. If a player controls at least two of his exit hexes, none of his units on the map are trapped. If he controls only one of his exit hexes, all his units are partially trapped; he loses points equal to $\frac{1}{4}$ of his total strength remaining on the map ($\frac{1}{8}$ as bad as if his units had been killed). If he controls none of his exit hexes, all his units are completely trapped; he loses points equal to $\frac{1}{32}$ of his total strength ($\frac{1}{4}$ as bad as if his units had been killed).

Thus, there is a clear hierarchy. It's better to exit a unit from an exit hex than to have it trapped, and it's better to exit it from a non-exit hex than to have it killed. Of course, if units have been exited you can't use them to achieve other victory conditions (guarding your victory hexes, causing enemy casualties, etc.); the decision to exit or not to exit should be based on what the unit could accomplish in terms of points if it were to remain on the map.

After the Game

When the game is over, press **[Q]** to advance to the tactical map, where the final score is displayed. You can move the cursor over the map and examine both sides' units, with all factors displayed.

Pressing **[Q]** once starts a new game on the Atari 400 and 800 (not on XL models).

Mid-Game Options

There are a number of options available to you during the game. You can save the current game or enter a new one from disk, save or enter a set of orders, or change various features of the current game.

To do any of these, you must first stop the game. Press **[S]**. The message appears, "Stop game with S". Press **[S]** again. The disk drive works for a while and the game stopped menu appears. The various options on the menu are covered below.

DISK OPERATIONS

You can save or restore a game position, save or enter a player's move, play by mail,

or begin a new game from the game stopped menu, using options (1) through (7). These options are described on a separate sheet included with the game.

CHANGING OPTIONS

Press (8) on the game stopped menu to display an option menu, similar to the pre-game option menu. You can change the number of players, computer's side and skill level, visibility, morale, fatigue, and sound. You can't change communications or change to (or from) the second day battle scenario. Procedure and effects are the same as for the pre-game options.

Everything except number of players and computer's side changes immediately; the latter two change at the beginning of the next player's turn. (If, for example, you are playing the Union against the computer and change your side to Confederate, you will still have to complete the current Union move.)

If you change morale and/or fatigue from *yes* to *no*, both will keep their currently displayed values, but will have no effect on the game.

When all options are set to your satisfaction, press (ESC) to return to the game stopped menu.

RETURNING TO THE CURRENT GAME

You can leave the game stopped menu and return to the game in progress by pressing (0) (zero).

The Joystick

Most game functions can be handled using the joystick (in port 1) instead of the keyboard, if desired. Using the joystick doesn't disable the keyboard, and you can freely mix both types of control. Since the majority of players have found keyboard input easier for most functions, the rest of this book refers to the keyboard only, and joystick input is described by referring to the keys of the keyboard.

Pick Up and Drop: To pick up or drop a unit ((F) or (J)), push the joystick fire button briefly and release it.

Directions: To enter one of the six directions (cursor movement, fields of fire, etc.), move the joystick with the fire button up, as shown on the reference card. Note that moving the joystick directly left or right has no effect. This is to make it easier to enter the four diagonal directions. For example, it is easier to move the joystick in the upper right diagonal by first moving the joystick right and then up.

Other Commands: To enter other commands, move the joystick with the fire button down, as shown on the reference card. Note that you can't enter the various modes directly using the joystick; you must cycle through them (equivalent to pressing (O)) by moving the joystick up.

Joystick Sensitivity: The program automatically delays after each joystick command is entered. You can control the length of this delay. By pressing the (4) and (5) keys, you can respectively increase and decrease the length of the delay. As you become more skilled at using the joystick, you can make play go faster by decreasing the delay. These keys also affect the speed with which the program reviews units' orders, plays sounds, and runs the turn review.

The Computer as Player

The computer can play fairly well, but it still isn't as smart as a human player. To compensate for this to some degree, it knows the positions and all factors of your units as of the beginning of each turn, even if the visibility option is set at *no*. (It doesn't get to see what orders you have entered, though.)

The game itself makes no use of random numbers to determine the outcome of events; all games with identical orders and identical options will have identical results. However, the computer player makes some use of random numbers in making its decisions about whether to attack or defend particular hexes. (If it didn't, it would be too predictable.)

You may also be interested in the differences in computer skill levels. One major difference is the distance from a particular hex the computer looks when evaluating the attention it should pay to events around that hex; Low looks 3 hexes away, Medium 4, and High 5. Medium looks at its orders once again after finishing them to see if it can improve them further; High looks twice. Low never fires far, and Low and Medium never fortify.

Low takes about 1.5 minutes to make a move, Medium takes 2.5, and High takes 3.5 minutes. They never take much longer than that.

Program Messages

The bottom-most line on the screen is used for messages from the computer to you; the various messages are given below.

Put dots in infantry targets: Displayed when a unit is in either fire mode, asking you to indicate the direction of infantry fire.

Put the dot in artillery target: Displayed in fire far mode after you have specified an infantry target, asking you to indicate a target hex for the artillery.

Target too close: You are trying to fire your artillery at an adjacent hex, which is not allowed in fire far mode.

Target too far: You are trying to fire your artillery at a hex more than three hexes away.

Target not visible: The line of sight to this hex is blocked by a woods or ridge hex.

Suicide forbidden: You are trying to fire your artillery at the firing unit itself.

Valid target: You can fire your artillery at this hex.

Put star on hexside to fortify: Displayed when a unit is in fortify mode, asking you to indicate the direction of a hexside to fortify.

Not enough time left: You are trying to enter an order which takes more time to complete than the unit has left.

Map edge: You are trying to move the cursor or a unit off the edge of the map. (You do not get this message if you move a unit off along a road or trail in march mode.)

Cannot cross river here: You are trying to cross where there is no bridge or ford. (You also get this message if you try to move a unit across a bridge in attack mode.)

Unit off map: You are trying to give an order to a unit after you have ordered it to leave the map, which cannot be done.

Unit entering map: You are trying to cancel the order for a reinforcement to enter the map, which cannot be done.

HQs cannot: You are trying to order an HQ to do something other than move in march mode or wait.

No order entered: Appears when you try to cancel the orders of a unit with no orders, when you cancel all a unit's orders ((**SPACE**)), or when you are locating units without orders on the strategic map.

No unit in hex: You are trying to pick up a unit in an empty hex.

Key undefined: You have pressed a key that has no meaning in the game.

Key undefined here: You have pressed a key (or entered a command with the joystick) that is used in the game but makes no sense at the moment.

End turn with Q: You have pressed (**Q**) once; pressing it again ends the turn. Any other key cancels the order.

Restart turn with CNTL X: You have pressed (**CTRL**) (**X**) once; pressing it again restarts the turn. Any other key cancels the order.

Stop game with S: You have pressed (**S**) once; pressing it again stops the game. Any other key cancels the order.